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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/031,602	01/23/2002	Akiko Miyakawa	1642.1002	6562

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EXAMINER

BISSETT, MELANIE D

ART UNIT	PAPER NUMBER
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1711

DATE MAILED: 07/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/031,602

Applicant(s)

MIYAKAWA ET AL.

Examiner

Melanie D. Bissett

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,5,7,8,10,12-19,48 and 49 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,5,7,16-19,48 and 49 is/are rejected.
- 7) ☒ Claim(s) 8,10 and 12-15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

1. The rejections have been altered to reflect the amended claims.

***Claim Rejections - 35 USC § 103***

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 1, 5, 7, 16, 48, and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fong et al. as evidenced by Tarumi et al.
4. From a prior Office action:

Fong teaches optical products comprising a base and optical layer, where the optical layer has a refractive index of at least 1.55 (abstract; col. 4 line 59-col. 5 line 3). The optical layers are polymerized and cured by use of UV light and a photoinitiator (col. 11 lines 45-65). Examples show composite films having refractive indices of 1.5890-1.5975, where the films are made from uncured resins having refractive indices of 1.5592-1.5755 (Table 3).

Additionally, Fong teaches that the compositions may be applied to optical lenses (col. 12 lines 59-65) and to glass substrates (col. 3 lines 16-27) but does not specify application to glass lens substrates. The reference teaches that any base material may be used as long as the material is optically clear and has sufficient structural strength (col. 3 lines 5-15). The compositions of the invention serve to increase index of refraction and thus increase brightness of a substrate (col. 1 lines 43-65). Since glass lens substrates are well-known in the optical element art, it is the examiner's position that it would have been prima facie obvious to apply the compositions of Fong's invention to glass lens substrates to improve the brightness gain of glass lens substrates.

5. Regarding the limitations to contain two or more benzene ring structures in one molecule, it is noted that the reference suggests copolymerization with bisphenol A-containing di(meth)acrylates, including ethoxylated bisphenol A di(meth)acrylate (col. 10 lines 1-26). Since the homopolymers of these monomers are known to have high refractive indices (see Tarumi et al., col. 2 lines 14-65), it is the examiner's position that the copolymers in Fong's invention would possess the high refractive indices taught in the invention. Because the reference suggests the use of such monomers to form

optical layers, it is the examiner's position that it would have been prima facie obvious to choose copolymers having the claimed monomers to apply to glass and form equally improved optical properties. Also, since the polymers are the same as those claimed by the applicant, it is the examiner's position that the elements would possess the applicant's claimed gel percentage, molecular weights, and shrinkage values.

6. Claims 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fong et al. as evidenced by Tarumi et al. and in view of Canon.

7. Fong applies as above, teaching benzene-containing polyacrylates as coatings but failing to teach a still camera or video camera. Canon teaches lenses having high refractive index, UV-curable coatings, where the lenses are used in photographic and video camera lenses to provide optical enhancement (pp. 2-3). Since such applications are known for using optical elements including lenses, it is the examiner's position that it would have been prima facie obvious to form still cameras and video cameras containing the lenses of Fong's invention to provide the articles with improved optical properties.

8. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fong et al. as evidenced by Tarumi et al. and in view of Sato.

9. Fong teaches optical lenses having specific coatings; however, the reference does not specify the use of the coatings on lenses for interchangeable lenses. Sato teaches that interchangeable lenses with aspherical properties are well-known in the

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art, where interchangeable lenses are used to provide extra magnification to a standard 35-mm camera (col. 1 lines 10-23). Thus, it would have been prima facie obvious to use the coatings of Fong's teaching for an interchangeable lens to provide standard cameras with extra magnification.

### ***Allowable Subject Matter***

10. Claims 8, 10, and 12-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. The closest prior art, Fong et al., teaches UV-curing coatings for glass lenses comprising a brominated (meth)acrylate, a polyfunctional (meth)acrylate, and a photopolymerization initiator. However, the reference does not teach the compositions comprising a polyfunctional urethane (meth)acrylate with a two benzene ring-containing polyfunctional (meth)acrylate. It is the examiner's position that these limitations, when included in the claimed optical elements, provide a novel and unobvious step over the prior art.

### ***Response to Arguments***

12. Regarding the applicant's arguments that the amendment overcomes the previous rejections, it is noted that the amended claims are drawn to combinations of limitations not previously considered. The prior art has been reconsidered in view of the amendments, and the rejections have been altered.

***Conclusion***

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melanie D. Bissett whose telephone number is (571) 272-1068. The examiner can normally be reached on M-F 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Melanie D. Bissett  
Patent Examiner  
Art Unit 1711

mdb